

**Practitioner's Docket No. VTY2002-01RM****IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**STATUS OF THE CLAIMS:**

Kindly cancel claims 31-49 and claims 58-130.

1. A method for identifying a subject as a candidate for a particular clinical course of therapy to treat a vascular disease or disorder comprising the steps of:
  - a) determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
  - b) identifying the subject as a candidate for a particular clinical course of therapy based on the identity the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.
2. The method of claim 1, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.
3. The method of claim 1, wherein the clinical course of therapy is use of a medical device.
4. The method of claim 1, wherein the clinical course of therapy is use of a surgical procedure.
5. The method of claim 3, wherein said medical device is selected from the group consisting of: a defibrillator, a stent, a device used in coronary revascularization, a pacemaker, and any combination thereof.
6. The method of claim 3, wherein said medical device is used in combination with a modulator of EDN1 gene expression or EDN1 polypeptide activity.
7. The method of claim 4, wherein said surgical procedure is selected from the group consisting of: percutaneous transluminal coronary angioplasty, laser angioplasty, implantation of a stent, coronary bypass grafting, implantation of a defibrillator, implantation of a pacemaker, and any combination thereof.
8. A method for identifying a subject who is a candidate for further diagnostic evaluation for a vascular disease or disorder comprising the steps of:

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- a) determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
- b) identifying the subject as a subject who is a candidate for further diagnostic evaluation for a vascular disease or disorder based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.

9. The method of claim 8, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.
10. The method of claim 8, wherein said further diagnostic evaluation consists of use of one or more vascular imaging devices.
11. The method of claim 10, wherein said vascular imaging device is selected from the group consisting of: angiography, cardiac ultrasound, coronary angiogram, magnetic resonance imagery, nuclear imaging, CT scan, myocardial perfusion imagery, electrocardiogram, and any combination thereof.
12. The method of claim 8, wherein further diagnostic evaluation is selected from the group consisting of: genetic analysis, familial health history analysis, lifestyle analysis, exercise stress tests, and any combination thereof.
13. A method for selecting a clinical course of therapy to treat a subject who is at risk for developing a vascular disease or disorder comprising the steps of:
- a) determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
  - b) selecting a clinical course of therapy for treatment of a subject who is at risk for developing a vascular disease or disorder based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.
14. The method of claim 13, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.
15. The method of claim 13, wherein the clinical course of therapy comprises use of a medical device for treating a vascular disease or disorder.

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16. The method of claim 15, wherein said medical device is selected from the group consisting of: a defibrillator, a stent, a device used in coronary revascularization, a pacemaker, and any combination thereof.
17. The method of claim 15, wherein said medical device is used in combination with a modulator of modulators of EDN1 gene expression or EDN1 polypeptide activity.
18. The method of claim 13, wherein said clinical course of therapy is use of a surgical procedure.
19. The method of claim 18, wherein said surgical procedure is selected from the group consisting of: percutaneous transluminal coronary angioplasty, laser angioplasty, implantation of a stent, coronary bypass grafting, implantation of a defibrillator, implantation of a pacemaker, and any combination thereof.
20. A method for determining whether a subject will benefit from implantation of a stent comprising the steps of:
- determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
  - determining whether a subject will benefit from implantation of a stent based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.
21. The method of claim 20, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.
22. A method for determining whether a subject will benefit from use of a vascular imaging procedure comprising the steps of:
- determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
  - determining whether a subject will benefit from use of a vascular imaging procedure based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.
23. The method of claim 22, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.

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24. The method of claim 22, wherein said vascular imaging procedure is selected from the group consisting of angiography, cardiac ultrasound, coronary angiogram, magnetic resonance imagery, nuclear imaging, CT scan, myocardial perfusion imagery, electrocardiogram, and any combination thereof.

25. A method for determining whether a subject will benefit from a surgical procedure comprising the steps of:

- a) determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
- b) determining whether a subject will benefit from a surgical procedure based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.

26. The method of claim 25, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.

27. The method of claim 25, wherein said surgical procedure is selected from the group consisting of percutaneous transluminal coronary angioplasty, laser angioplasty, implantation of a stent, coronary bypass grafting, implantation of a defibrillator, implantation of a pacemaker, and any combination thereof.

28. A method for selecting an effective vascular imaging device as a diagnostic tool in a subject comprising the steps of:

- a) determining the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof; and
- b) selecting an effective vascular imaging device as a diagnostic tool for said subject based on the identity of the nucleotides present at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complements thereof.

29. The method of claim 28, wherein determining the identity of the nucleotides is by obtaining a nucleic acid sample from the subject.

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30. The method of claim 28, wherein said vascular imaging device is selected from the group consisting of: angiography, cardiac ultrasound, coronary angiogram, magnetic resonance imagery, nuclear imaging, CT scan, myocardial perfusion imagery, electrocardiogram, and any combination thereof.

31.-49. Cancelled herewith

50. A method of diagnosing or aiding in the diagnosis of a vascular disease in a subject comprising the steps of:

- (a) obtaining a nucleic acid sample from the subject; and
- (b) determining the identity of the nucleotides at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complement thereof,

wherein the presence at least one copy of a C at nucleotide position 157790 of GI 2791272 in combination with at least one copy of a G at nucleotide position 159908 of GI 2791272, or the complements thereof, or at least one copy of T at nucleotide position 157790 of GI 2791272 in combination with at least one copy of T at nucleotide position 159908 of GI 2791272, or the complements thereof, is indicative of increased likelihood of a vascular disease in the subject as compared with a subject having any other combination of these alleles.

51. The method of claim 50, wherein the vascular disease is selected from the group consisting of atherosclerosis, coronary artery disease, myocardial infarction, ischemia, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism.

52. The method of claim 51, wherein the vascular disease is myocardial infarction.

53. The method of claim 51, wherein the vascular disease is coronary artery disease.

54. A method for predicting the likelihood that a subject will have a vascular disease, comprising the steps of:

- (a) obtaining a nucleic acid sample from the subject; and
- (b) determining the identity of the nucleotides at nucleotide positions 157790 and 159908 of SEQ ID NO:1, or the complement thereof,

wherein the presence of at least one copy of a C at nucleotide position 157790 of GI 2791272, in combination with at least one copy of a G at nucleotide position 159908 of GI 2791272, or the complements thereof, or at least one copy of T at nucleotide position 157790 of GI 2791272, in combination with at least one copy of T at nucleotide position 159908 of GI 2791272, or the

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complements thereof, is indicative of increased likelihood of a vascular disease in the subject as compared with a subject having any other combination of these alleles.

55. The method of claim 54, wherein the vascular disease is selected from the group consisting of atherosclerosis, coronary artery disease, myocardial infarction, ischemia, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism.

56. The method of claim 55, wherein the vascular disease is myocardial infarction.

57. The method of claim 55, wherein the vascular disease is coronary artery disease.

58.-130. Cancelled herewith